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REMARKS

In the previous response, Applicant inadvertently entered a claim not consistent with previous prosecution.- This error is corrected by the amendment presented hereinabove, wherein said original claim as pending as of the date of the Office Action date Sept. 3, 2002 is now reinstated as claim 1. Applicant respectfully requests consideration and allowance of the present application.

35 U.S.C. §103 Rejections

Applicant respectfully disagrees with the Examiner's characterization of Fette and Kleider as making obvious Applicant's claimed invention. To establish a prima facie case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation of, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all the claim limitations.

With respect to claim 1, the pending claim recites:

1. A method of quantizing information about a parameter of speech, comprising:
generating at least one weighted value of the parameter for at least one previously processed frame of speech, wherein the sum of all weights used is one;
subtracting the at least one weighted value from a value of the parameter for a currently processed frame of speech to yield a difference value; and
quantizing the difference value.

As recited in claim 1, a quantizing method includes generating a weighted parameter for a previously processed frame of speech. Fette teaches away from this, by treating

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multiple frames as a superframe. See Fette, col. 6, lines 20-29. Fette processes the superframe as a unit. While the superframe includes multiple frames, the frames are processed, including quantizing, together. Fette does not generate a weighted value for a parameter of a previously processed frame, but rather weights the superframe to indicate voicing, wherein the scale is -1 to $+1$. This is in contrast to Applicant's claimed invention wherein the sum of all weights is 1. A range of -1 to $+1$ does not satisfy this limitation. By providing the sum of all weights equal to one, the individual weighted parameters are compared to each other. In contrast, the weighting discussed in col. 11 of Fette compares the values to absolute reference scale, wherein -1 is highly unvoiced and $+1$ is highly voiced. Additionally, this section details the summing of parameters for each frame, and does not teach or suggest the sum of all weights for frames of speech being equal to one.

The teachings of Kleider do not add sufficient material to complete the missing pieces in the prima facie case of obviousness. Kleider teaches a delta quantizer that characterizes the spectral change from the previous frame. Kleider does not teach subtracting a weighted parameter value of a previous frame from the value of a parameter of a current frame. As recited in Applicant's claim 1, the weighted value is subtracted from the unweighted value. The difference is then quantized. While Kleider discusses a delta quantizer, this is a general reference and does teach or suggest the specific limitations of Applicant's claims. Not would it be obvious to one of skill in the art to make such a conclusion without using hindsight based on Applicant's claimed invention. There is no teaching or suggestion in Fette or Kleider of a system wherein a weighted parameter of a previously processed frame is subtracted from a current frames parameter (unweighted) to result in a difference that is the object of the quantization.

The arguments given hereinabove with respect to claim 1, are applicable to claims 2-6, 10-16 and 20-25. Applicant respectfully submits that the pending claims are patentable over the prior art of record and request withdrawal of the rejection and allowance of the claims.

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REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application is earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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By: Sandra L. Godsey
Sandra L. Godsey
Attorney for Applicants
Registration No. 42,589

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-4517
Facsimile: (858) 658-2502

Attorney Docket No. ~~000000~~ 000275

Customer No. 23696

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APPENDIX

MARKED UP VERSION OF AMENDED CLAIM:

1. (Once Amended) [An antenna apparatus in a wireless data communication system, comprising:

a first antenna element;

a second antenna element;

a circulator coupled to the first and second antenna elements, wherein the circulator is configured to transmit signals to the first antenna element and to receive signals from the second antenna element; and

a cable coupled to the circulator, the cable adapted for communication with a base station, the cable adapted for communication of transmit signals to the first antenna and for communication of receive signals from the second antenna element]

A method of quantizing information about a parameter of speech, comprising:

generating at least one weighted value of the parameter for at least one previously processed frame of speech, wherein the sum of all weights used is one;

subtracting the at least one weighted value from a value of the parameter for a currently processed frame of speech to yield a difference value; and
quantizing the difference value.